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Older Parents Providing Child Care for Adult Children: Does It Pay Off?

*This study examined whether past grandparental child care is related to present support from adult children. On the basis of social exchange theory, the authors expected that grandparental child care creates a debt that is repaid in the form of receiving support later in life. Using data from the Longitudinal Aging Study Amsterdam (*N = *349 parents,* N = *812 adult children), the authors found that grandparents who frequently provided child care for sons in the past more often received instrumental and emotional support from these sons approximately 13 years later than grandparents who less frequently provided child care. Investments in daughters did not pay off. Instrumental support other than child-care provision did not predict receiving support from either sons or daughters, but emotional support did. These results support the notion of long-term reciprocity in parent – child relationships, but its importance depends on the child's gender and the type of earlier investment.*

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Research has consistently demonstrated that adult children are important support providers for older adults (Hogan, Eggebeen, & Clogg, 1993). Previous research has examined the constraints that these adult children face in providing support for their parents by studying the obstacles of competing responsibilities, such as work obligations and commitments to their own families, and geographical proximity (Mulder & van der Meer, 2009). Attention has also been given to the role of norms (Killian & Ganong, 2002; Klein Ikkink, van Tilburg, & Knipscheer, 1999; Silverstein, Gans, & Yang, 2006), religion (Gans, Silverstein, & Lowenstein, 2009), family structure (Bengtson, 2001), and the consequences of support sources other than children (Uhlenberg, 2009).

The influences of earlier support exchanges on the present support have rarely been considered, because longitudinal data are scarce (Parrott & Bengtson, 1999), but the idea that parents invest in their children earlier in life by giving them support in order to receive their children's assistance in later years is prominent in research on intergenerational support (Antonucci & Jackson, 1989; Silverstein, Conroy, Wang, Giarrusso, & Bengtson, 2002; Uehara, 1995). The few studies that have been conducted support this idea: Older adults who transferred money, sentiment, or time in the past were more likely to receive support later in life than older adults who did not transfer these

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types of support (Parrott & Bengtson, 1999; Silverstein et al., 2002).

According to Friedman, Hechter, and Kreager (2008), past support in the form of child care for grandchildren may be one of the most important determinants for future support from adult children. No empirical study has yet tested the idea that grandparental child-care provision induces future support receipt. Drawing on social exchange theory and the concept of reciprocity, in the current study we examined whether grandparental child-care provision in the past is related to current support from adult children, using longitudinal data in which child-care provision was measured in 1992 and support received from adult children was measured 7 to 17 years later.

Child Care Provision as a Long-Term Investment

Different theories exist regarding why children support parents, the most important being social exchange theory (Homans, 1958), theories emphasizing the role of norms of filial obligations (i.e., the notion that children ought to support their parents; Rossi & Rossi, 1990), and theories emphasizing altruism (i.e., unselfish support because children care about their parents; Logan & Spitze, 1995). To understand the role of earlier support for future support, we focus on social exchange theory, which is based on the idea that the exchange of social and material support is an essential part of human interaction (Homans, 1958). People in an exchange relationship provide and receive support. Exchange that takes place more or less at the same time is commonly referred to as *immediate exchange*. For instance, grandparents may provide child care for their children and receive money or appreciation in return. An exchange in which provided support is returned over an extended period of time is commonly referred to as *deferred exchang*e (Lévi-Strauss, 1969), *life course reciprocity* (Antonucci & Jackson, 1989), *time-delayed reciprocity* (Uehara, 1995), or *long-term reciprocity* (Silverstein et al., 2002).

Long-term reciprocity is assumed to be guided by the norm of reciprocity (Uehara, 1995). To avoid shame, guilt, or damage to reputation (Greenberg, 1980), the norm of reciprocity prescribes that ''what one party receives from the other require[s] some return'' (Gouldner, 1960, p. 169). An ongoing imbalance in either giving or receiving leads to dissatisfaction with one's relationship and may lead to discontinuation of the relationship when dissatisfaction goes beyond a certain threshold. Close relationships withstand long-term imbalance better than peripheral relationships (Klein Ikkink & van Tilburg, 1999); that is, reciprocity within close relationships does not always need to be reinforced by norms. It can be self-perpetuating because of the recurring exchanges of support over time (Gouldner, 1960). Parent – child relationships are usually close ones characterized by ongoing exchanges of support that are imbalanced at various stages in the life course. Early in their life course, parents often transfer more support to their children than they receive. This flow is often reversed later in the life course when parents age and children transfer back more support than they receive. To understand this imbalance at various stages in the life course, scholars have developed the idea of a ''support bank'' (Antonucci & Jackson, 1989) and the concept of ''social capital'' (Coleman, 1988) to highlight the idea that parents can store support in the parent – child relationship that can be tapped in times of need.

The extent to which parents can store support in the intergenerational relationship presumably differs for sons and daughters. Sons are more likely than daughters to evaluate received support as a long-term investment. Daughters are socialized to be kinkeepers, which means that they are said to have the primary responsibility for holding the family together, making them more involved in family relationships (Dubas, 2001). Characterized by self-perpetuating reciprocity rather than reciprocity reinforced by norms, support exchange within parent – daughter relationships is presumably less evaluated in terms of investments than support exchange within parent – son relationships; that is, support received by daughters is more part of a continuous process of immediate exchanges rather than long-term reciprocity that needs to be reinforced by norms. Although empirical evidence about gender differences in long-term reciprocity is far from conclusive, several studies have supported the idea that men and women differ in the extent to which the norm of reciprocity plays a role. Parrott and Bengtson (1999), for instance, observed that fathers in need of support were more likely to reciprocate the received support in order to balance the relationship than were mothers. Targeting sons with support in order to compel future reciprocity may therefore

be a more effective strategy than targeting daughters.

Parents can target their children with various types of support early in the life course to compel future reciprocity. Grandparental child-care provision may be the most effective investment, for two reasons. First, because time beyond working hours is often a luxury commodity, in particular for dual-income parents, grandparental child-care provision is presumably of higher value than financial or emotional support. In particular, parents generally find child-care provision from their parents to be more convenient, more beneficial to their child, more trustworthy, and less expensive than care from other child minders (Fergusson, Maughan, & Golding, 2008). Furthermore, it enables women to be employed outside of the house because it eases the reconciliation of child care with work. Also, grandparental child care is presumably remembered for a longer period of time than investments such as helping with the daily chores in and around the house.

Support received from adult children may take many forms but is commonly classified into emotional and instrumental support (Veiel, 1985). Emotional support includes advice, words of encouragement, compliments, attention, and sympathy, whereas instrumental support involves services such as help with household chores, transportation, and cooking. We hypothesized that the more often parents had provided child care to their grandchildren in the past, the more often they receive instrumental and emotional support from their children in later years. In addition, we hypothesized that child-care provision for sons is more likely to be reciprocated than child-care provision for daughters. Because investments other than child care are also expected to increase social capital within the parent – child relationship, we included emotional support received by children in the past as well as instrumental support, which is different from child-care provision (Parrott & Bengtson, 1999; Silverstein et al., 2002).

Support received from adult children is affected by the parent's need for support from children and the child's opportunities to provide this support. We therefore included parents' functional capacities and age as indicators for support need (Klein Ikkink et al., 1999). Because the parent's partner often ranks first in the preference order of support providers (children rank second), we included in our analyses whether a parent has a coresiding partner or not. In addition, we included parent's income level to account for the opportunities to afford support from other sources than the children. We also accounted for the parent's gender (Klein Ikkink et al., 1999). For children, we accounted for opportunities to provide support by including in our analysis their age, employment status, and travel time to the parent. Finally, because the time between the first observation and eligible follow-up observation varied per grandparent, we accounted for the elapsed time between the observations.

Method

Respondents

In 1992, researchers conducting the Living Arrangements and Social Networks research program (Knipscheer, De Jong Gierveld, van Tilburg, & Dykstra, 1995) conducted computer-assisted interviews with 3,805 older adults from the birth cohorts 1908 through 1937 taken from the population registers of 11 Dutch municipalities. Because of time restraints, the computer randomly selected 827 parents with grandchildren who were asked about their grandchild's gender, age, coresidence, and frequency of child-care provision in the year preceding the interview. This Time 0 (T_0) observation was followed up by six observations conducted between 1992 and 2009 for the Longitudinal Aging Study Amsterdam (Huisman et al., 2011). These follow-ups included information about support exchanges between parents and adult children.

We selected four of the six available follow-ups to assess the parents' receipt of support from adult children and other time-varying characteristics. We did not analyze data from the first (Time 1 [T_1]: 1992 – 1993) and second (Time 2 [T_2]: 1995 – 1996) follow-ups because the time interval with T_0 (a maximum of 4 years) was too short to be able to capture long-term reciprocity. These follow-ups presumably included parents who were still investing instrumental support by means of child-care provision and thus were unlikely to be in need of support from their children. The subsequent follow-ups—Time 3 (T_3; 1998 – 1999), Time 4 (T_4; 2001 – 2002), Time 5 (T_5; 2005 – 2006), and Time 6 (T_6; 2008 – 2009)—allowed us to examine whether child-care provision at T_0 was reciprocated at a later time (between 7 and 17 years later). We

gave preference to the information from the T_6 follow-up to maximize the time between the observations: This yielded the highest likelihood that the parents were in need of support because of older age and worse health. To increase the sample size, we analyzed information from a preceding interview if the parents from T_0 were not interviewed at the T_6 follow-up. We repeated this step-back selection procedure until follow-up T_3 was reached and included. At the T_3 follow-up, 180 parents who were selected at T_0 had died (22%, $N = 827$); another 22 parents had died by T_4 (3%), 11 by T_5 (1%), and seven by T_6 (1%). Some T_0 parents declined further participation: 94 at follow-ups T_1, T_2, or T_3 (11%); 5 at T_4 (1%); 3 at T_5 (<1%); and 1 at T_6 (<1%). Furthermore, a total of 18 parents (2%) were lost for follow-up measurement because they could not be contacted, and 59 more were lost because they had severe health problems (7%).

From the 827 parents who were selected at T_0, we first excluded parents for whom we had no information at one of the eligible follow-ups ($n = 400$, 48%). Second, we excluded parents whose grandchildren were all older than 12 years at T_0 ($n = 69$, 8%), because child care is generally not needed for older children. Finally, parents were excluded when all adult children had died at the eligible follow-up observation ($n = 9$, <1%). Because parents by definition cannot invest in childless children by means of child-care provision, we excluded 409 childless children. The final sample consisted of 349 parents and 812 adult children. All of these parents had at least one grandchild age 12 years or younger from at least one child at T_0. Among the 812 adult children, however, there were 165 adult children with only children older than 12. These 165 adult children are included in our analysis in a separate category. The mean time that had elapsed between T_0 and the eligible follow-up was 12.7 years ($SD = 4.0$). Over time, the sample shifted toward a higher percentage of mothers (from 52% at T_3 to 69% at T_6) and toward parents who had been younger at T_0, from an average of 71 years to an average of 63 years. We assessed information about parents' support receipt for 46% of the parents at T_6, 13% at T_5, 25% at T_4, and 16% at T_3.

Measures

Instrumental and emotional support received from children. Information on instrumental and emotional support received from children was available only for children who were identified in the parent's personal network and were among the 10 persons in the personal network most frequently contacted. For this network identification, respondents were asked to identify members of their network by name (van Tilburg, 1998). The following question was posed: ''Name the people with whom you have frequent contact and who are important to you.'' For the 10 network members with the highest frequency of contact, the following question was asked at each follow-up to assess instrumental support received from each adult child: ''How often did it occur in the last year that [name of adult child] helped you with daily chores in and around the house, such as preparing meals, cleaning the house, providing transportation, assisting with small repairs, or filling in forms?'' For received emotional support, the question was ''How often in the past year did you tell [name of adult child] about your personal experiences and feelings?'' The answer categories were 0 = *never*, 1 = *seldom*, 2 = *sometimes*, and 3 = *often*. For children not identified in the network (10%) or not belonging to the 10 network members contacted most frequently (14%), we assigned the value 0, assuming that they had never or rarely provided support to their parents in the year preceding the interview.

To evaluate the similarity of the three groups composing the ''never support'' category in the analysis (i.e., never provided support, not identified in the network, not among the 10 network members with the highest contact frequency), we analyzed the frequency of contact that was available for all children. On the contact frequency scale, which ranged from 1 = *never* to 8 = *daily*, children not identified in the network had a significantly lower mean (i.e., 5.1) than those who never provided instrumental support ($M = 6.0$), $t(240) = 4.2$, $p < .001$, or emotional support ($M = 5.8$), $t(137) = 2.45$, $p < .01$. Likewise, children who were not among the 10 network members most frequently contacted had a significantly lower mean (i.e., 5.3) than those who never provided instrumental ($M = 6.0$), $t(277) = 4.20$, $p < .001$, or emotional support ($M = 5.8$), $t(174) = 2.34$, $p < .05$. This finding supports our assumption that support is presumably never or rarely received from children who were not among the 10 network members frequently contacted or who were not identified as network members.

Past child-care provision to children. At T_0, the parents provided the names of all of their children and grandchildren. The frequency of child-care provision for each grandchild was assessed by asking ''How often did you take care of [grandchild's name] in the past twelve months?'' The four possible answers were 0 = *never*, 1 = *seldom*, 2 = *sometimes*, and 3 = *often*. Grandparental child-care provision did not vary at all among grandchildren from a specific child; that is, grandparental child-care provision generally involved all grandchildren within a household. We created a variable indicating for each adult child whether he or she had eligible children but had *never received child care support* (34%), *seldom received child care support* (8%), *sometimes received child care support* (22%), or *often received child care support* (17%) in the year preceding the interview. For adult children with only children older than 12 years, we had no information on the amount of child-care provision in earlier years. We included their situation as a specific category. The resulting variable served as the independent variable to examine our hypothesis that predicts support from children in later life from past child-care provision.

Control variables. We included instrumental and emotional support provided by parents and received by children at T_0. We obtained this information using a procedure identical to the one used for the dependent variable, except that the direction of the support exchange was reversed. We also controlled for several characteristics of parents that are known to affect receipt of support: gender (Michalski & Shackelford, 2005), age, having a coresiding partner (vs. no coresiding partner; ''Are you currently living with someone whom you consider to be a partner?''), income (''Will you please tell me what category applies to your net income?''), and functional capacities (measured by the six-item Activities of Daily Living scale; Katz, Ford, Moskowitz, Jackson, & Jaffe, 1963; reliability = .79). We also controlled for the child's age (''In what year was [child's name] born?''), employment status (''Does [child's name] have a job?''), and travel time between parent and child (''How long does it take you to travel to [child's name] by means of the way you usually travel?''). Finally, we included a variable reflecting the time between T_0 and the follow-up observation. All time-dependent characteristics of parents and children were measured at the selected follow-up observation.

Procedure

The data were hierarchically structured, with children nested within parents. We therefore conducted a multilevel, ordinal logistic regression analysis by which differences between families and dependence of the observations within families are captured in separate error terms. We distinguished a child level (Level 1) and a parent level (Level 2). The ordinal regression method generates an equation for each step in the ordinal dependent variable. The parameters from the equations are simultaneously estimated, and the obtained coefficients are constrained via cutoff points. The coefficients are thereby equal among the equations. Note that the dependent variable is at the level of the children, which means that the regression analyses reflect support provision by children rather than support receipt by parents; more specifically, the likelihood that children provide support to their parents is estimated, not the likelihood that parents receive support from their children. But it should be mentioned that these two perspectives are closely related.

We used the GLLAMM command (Rabe-Hesketh, Skrondal, & Pickles, 2004) available in Stata to regress instrumental and emotional support received from sons and daughters. The analyses involved four models: (a) instrumental support by daughters, (b) instrumental support by sons, (c) emotional support by daughters, and (d) emotional support by sons. We used the iterative generalized least squares method to estimate parents' support receipts, and logit was used as the link function. Using step-back modeling, the four final models include only predictor variables that were significantly related to support ($p < .05$). The variable child-care provision, however, was never dropped because this is our central independent variable. Descriptive statistics of the variables included in our final models of the regression analyses are shown in Table 1.

The unstandardized coefficients of the regression models reflect how a one-unit change in a predictor variable renders it more likely to be in one of the higher support categories (more support) than its reference group (less support). To understand what the estimated coefficients mean, we calculated from the final models the percentages of often-given instrumental and emotional support provision for two

Table 1. *Description of Parents' (*N = *349) and Adult Children's (*N = *812) Characteristics in 1992 (Time 0 [T_0]) and at the Follow-Up Observation That Were Included in the Final Regression Model*

	Daughters[a] – Parents[b]		Sons[c] – Parents[d]			
Variable	Mean or Proportion	*SD*	Mean or Proportion	*SD*	Min[e]	Max[e]
Parent's characteristics						
Age at follow-up	80.44	6.35	81.14	6.48	64 (65)	95
Functional capacities at follow-up	24.73	5.25	24.23	5.41	9 (8)	30
Adult child's characteristics						
Travel time at follow-up	3.08	1.05	3.18	1.17	0	7
Instrumental support from child at follow-up						
Never	.38	.49	.51	.50	0	1
Seldom	.16	.37	.13	.34	0	1
Sometimes	.21	.41	.20	.40	0	1
Often	.25	.43	.15	.36	0	1
Emotional support from child at follow-up						
Never	.24	.43	.40	.49	0	1
Seldom	.11	.31	.14	.35	0	1
Sometimes	.29	.45	.27	.44	0	1
Often	.36	.48	.19	.40	0	1
Emotional support from parent at T_0						
Never	.33	.47	.46	.50	0	1
Seldom	.11	.32	.09	.28	0	1
Sometimes	.29	.46	.24	.43	0	1
Often	.27	.44	.21	.41	0	1
Child-care provision at T_0						
Unknown (all grandchildren >12 years)	.22	.42	.18	.38	0	1
Never	.28	.45	.40	.49	0	1
Seldom	.07	.26	.08	.28	0	1
Sometimes	.24	.43	.19	.39	0	1
Often	.19	.39	.14	.35	0	1

Note: Child-care provision, emotional support from parent at T_0, and time-invariant characteristics such as gender were measured in 1992; all other characteristics were measured at follow-up.

[a]$n = 429$. [b]$n = 260$. [c]$n = 383$. [d]$n = 232$. [e]Values for daughter – parent relationships are included in parentheses when they deviated from son – parent relationship values.

groups of children: (a) daughters and sons to whom parents had often provided child care ($n_{\text{daughters}} = 119, n_{\text{sons}} = 154$) and (b) daughters and sons to whom parents had never provided child care ($n_{\text{daughters}} = 81, n_{\text{sons}} = 55$).

Results

We first describe how often daughters and sons provided instrumental and emotional support to their parents and how often parents provided child care earlier in the life course. For this description, we recalculated the proportions reported in Table 1 into percentages. For instrumental support, we observed that approximately 25% of daughters and 15% of sons often provided this type of support to their parents. The percentages of children who sometimes provided instrumental support were approximately equal for daughters (21%) and sons (20%). Few adult children seldom provided instrumental support to parents (16% of daughters and 13% of sons). Parents did not receive any instrumental support from 38% of daughters and 51% of sons. Compared with instrumental support, the figures for emotional support indicate that children more frequently provided this type of support. We observed that 36% of daughters and 19% of sons often provided emotional support to their parents. More than one quarter of the daughters (29%) and sons (27%) sometimes provided emotional

Table 2. *Ordinal Logit Two-Level Regression Estimates for Instrumental and Emotional Support Received From Daughters (429 Daughters With 260 Parents) and From Sons (383 Sons With 232 Parents)*

	Instrumental Support[a]				Emotional Support[a]			
	Daughters – Parents		Sons – Parents		Daughters – Parents		Sons – Parents	
Variable	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*
Parent's characteristics								
Age at followup (range: 64 – 95)	0.11***	0.02	0.05*	0.02	0.05*	0.03	0.05*	0.02
Functional capacities at follow-up (range: 8 – 30)			−0.07**	0.03				
Adult child's characteristics								
Travel time at follow-up (range: 0 – 7)	−0.87***	0.14	−0.39***	0.11				
Emotional support from grandparent at Time 0 (reference: never)								
Seldom	0.98**	0.44	0.86*	0.43	−0.07	0.45	0.77	0.46
Sometimes	0.41	0.32	0.50	0.43	1.17**	0.35	1.55***	0.35
Often	0.95**	0.33	0.75*	0.32	1.39***	0.36	1.79***	0.38
Child-care status at Time 0 (reference: never)								
Unknown (all grandchildren > 12 years)	−0.12	0.34	0.10	0.34	−0.74*	0.36	0.45	0.36
Seldom	0.29	0.46	0.27	0.43	0.06	0.48	0.71	0.46
Sometimes	0.12	0.34	0.73*	0.33	0.57	0.35	0.26	0.36
Often	0.32	0.37	0.78*	0.38	0.64	0.39	1.24***	0.39
Variance at grandparent level	1.62	0.68	0.90	0.55	2.19	0.76	1.75	0.70
Delta log likelihood	44.02		23.67		23.32		26.59	

Note: Wald tests were used for statistical significance; only statistically significant variables ($p < .05$) are included in these final models. Cutoff points are not reported because the stepwise modeling procedure does not allow comparison between models.

[a]Range: 0 – 3.

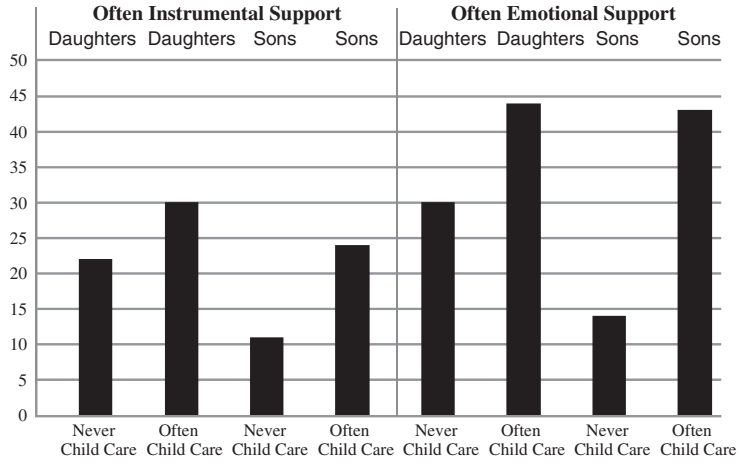
*$p < .05$. **$p < .01$. ***$p < .001$.

support. There were only a few daughters and sons who seldom provided this type of support (11% and 14%, respectively), and approximately 25% of daughters and 40% of sons had never provided emotional support in the year preceding the interview. Regarding child-care provision, we observed that 43% of daughters and approximately 33% of sons had sometimes or often received child care from their parents in the year preceding the 1992 interview. Child-care status was not known for one out of five adult children because the interview did not include a retrospective question about child-care provision at a younger age for grandchildren older than 12 years.

We now turn to the results of the regression models (see Table 2). All models were a significant improvement over the empty model, as indicated by the delta log likelihood. Regarding instrumental support (see left panel of Table 2), the model predicting daughters' support provision indicates that its likelihood is statistically not related to past child-care receipt. Although the unstandardized estimates for seldom, sometimes, and often child-care support receipt were positive in reference to the never child care category, none of these estimates were statistically significant. For sons, however, instrumental support was more often given when child-care provision had been more frequent, as indicated by the increase in the unstandardized coefficients from 0.27 for seldom child care receipt to 0.78 for often child care receipt. Sons who had sometimes or often received child-care provision in the past more often provided instrumental support than sons who had received less child-care provision. The unstandardized coefficient for sons with unknown child-care provision intensity was .10.

To facilitate the interpretation of the estimated unstandardized coefficients, we present in Figure 1 the percentages of daughters and sons who often provided support to their parents compared with the amounts of child-care

FIGURE 1. PERCENTAGE OF DAUGHTERS AND SONS WHO OFTEN PROVIDE INSTRUMENTAL AND EMOTIONAL SUPPORT GROUPED INTO THOSE WHO OFTEN RECEIVED CHILD CARE ($n_{daughters} = 119$, $n_{sons} = 154$) AND THOSE WHO NEVER RECEIVED CHILD CARE ($n_{daughters} = 81$, $n_{sons} = 55$).



Note: The percentages pertain to children providing support and not parents receiving support. Differences are statistically significant for sons only.

provision that they had received from their parents. The differences in percentages shown in the left panel of Figure 1 demonstrate in detail that child-care provision by parents increased the likelihood that sons often provided instrumental support later in life. For example, we observed that 11% of the sons often provided instrumental support when their parents had never provided child care, in contrast to 24% of sons whose parents had often provided child care. We observed a similar, slightly smaller, difference in percentage for daughters. We should note, however, that the difference for daughters was statistically nonsignificant in the regression model.

The estimates for emotional support at T_0 (left panel of Table 2) further indicate that children were more likely to provide instrumental support to parents when they had received more emotional support from their parents in the past. We excluded from the models the T_0 indicator for instrumental support received other than child-care provision because of statistical nonsignificance, suggesting that child-care provision is more important for long-term reciprocity than help with daily chores in and around the house. The estimate for grandparents' ages in the models for daughters and sons furthermore indicates that older parents received instrumental support more often from their children than did younger parents. This finding presumably reflects a higher need for support when parents age. Because of statistical nonsignificance, in the final model we excluded the indicator for parents' functional capacities for instrumental support provided by daughters. Sons whose parents had poor functional capacities were more likely to provide instrumental support than were sons whose parents had good capacities, indicating a greater dependency on sons when older adults have difficulties with performing activities of daily living. We excluded the parents' income, gender, and partner status from both final models (pertaining to instrumental support from daughters and sons). The results further indicate that daughters and sons were less likely to provide instrumental support when travel time between parent and child was greater. Employment status and age of children were not related to parents' instrumental support receipt.

In regard to emotional support (right panel of Table 2), we again observed that child-care provision in the past was statistically significantly related to current support intensity from sons but not from daughters. In the model for daughters, the unstandardized coefficient for child care provided often was 0.64, compared with the reference group of parents who never provided child care, with smaller estimates for intermediate frequencies of providing child care. Because these estimates were statistically not significant,

there is at best weak evidence that emotional support is more often provided by daughters when parental child-care provision had been more frequent in the past. Sons whose parents often provided child care in the past were significantly more likely to have provided emotional support to their parents later in life than sons with parents who provided child care less than often (or when child-care provision was unknown). The percentages for often emotional support provision by various levels of parental child-care provision are shown in Figure 1 and display a pattern similar to that for instrumental support. The likelihood of children providing emotional support was, however, higher when compared with providing instrumental support.

Table 2 further shows that higher levels of past emotional support provided to children increased the likelihood of receiving emotional support from children at the follow-up: The unstandardized coefficient increased from −0.07 to 1.39 for daughters and from 0.77 to 1.79 for sons when emotional support intensity at T_0 increased from seldom to often. Therefore, emotional support provided to a specific adult child at T_0 was a significant and strong predictor for intensity of emotional support received from this child many years later. The giving of parental instrumental support at T_0 was not related to emotional support received at the follow-up observation and therefore was not included in the final models and Table 2.

The models for emotional support further suggest that adult children were more likely to provide emotional support to older parents than to younger ones. Other characteristics of parents (i.e., their income level, functional capacities, and partner status) did not affect the frequency with which their children provided emotional support. In regard to the other children's characteristics, none of them were statistically significantly related to emotional support. It seems geographical proximity is not important for emotional support; this type of support does not require face-to-face contact and is easily exchanged, for instance, via telephone or e-mail. Children's age and employment status were not related to the likelihood of emotional support provision.

Discussion

In this study we examined whether support from adult children provided to their aging parents is related to the provision of child care by the parents to their grandchildren in the past. Our work contributes to earlier studies about support exchanges between children and parents in that it is the first study to empirically address the role of past grandparental child-care provision for support receipt in later life. Moreover, whereas most previous studies about earlier support exchanges between parents and children have used a cross-sectional design (e.g., Whitbeck, Hoyt, & Huck, 1994), we studied the role of grandparental child care with longitudinal data spanning, on average, 13 years between child-care provision and support receipt. Also, unlike most prior studies that have focused on one specific child or grandchild (e.g., Michalski & Shackelford, 2005; Shuey & Hardy, 2003), we were able to include information for almost all the parents' children and grandchildren.

Our study indicates that parents are more likely to receive support from their sons when they had often taken care of their children in the past. Earlier investments by means of child-care provision to daughters did not increase the likelihood of receiving support from these daughters. These findings suggest that grandparental child-care provision is an important investment, but only when invested in sons, because it contributes to the receipt of support in later life. According to social exchange theory, child-care provision thus creates a debt with sons that leads to reciprocation later in life in order to restore the cost – benefit balance within the relationship.

The nonsignificance of grandparental child care provided to daughters for future support suggests that long-term reciprocity does not play a key role in the support provision from daughters to parents. The absence of long-term reciprocity as a guiding principle suggests that support exchanges between parents and daughters may be characterized by an ongoing process of immediate support exchanges rather than long-term reciprocity. Also, theories other than social exchange may explain support from daughters, such as theories about filial obligations and altruism; that is, daughters may provide support because they are expected to do so because of culturally defined gendered obligations (Klein Ikkink et al., 1999; Rossi & Rossi, 1990) or because of a general concern about the well-being of their parents (Logan & Spitze, 1995). Both perspectives imply that earlier support exchanges do not play a role

for the support given by children to their aging parents.

Grandparental child-care provision in the past for sons was observed to be reciprocated only when it was provided sometimes or often, that is, on a regular basis. In these cases, child-care provision was being reciprocated not only by receipt of instrumental support but also in the form of emotional support (type crosswise reciprocity; Thomése, van Tilburg, Broese van Groenou, & Knipscheer, 2005). Moreover, instrumental support other than child-care provision (e.g., helping with daily chores) given by the parent in the past did not increase the likelihood of support given by sons. These findings fit with the hypothesis (Friedman et al., 2008) that grandparental child-care provision can be one of the most effective investments for the induction of future support because of its high value and the lasting effect of child-care provision as an investment in an adult child.

This study further shows that emotional support given in the past induced receipt of instrumental and emotional support between 7 and 17 years later. These findings are consistent with results from Silverstein et al.'s (2002) study, which showed that more affection in the past leads to greater support in the present. The significance of past emotional support in parent–child relationships points at the importance of affectionate feelings in support relationships between parents and children. People in an ongoing exchange relationship realize mutual dependence (Gouldner, 1960) and regularly inform each other about their personal experiences and feelings because they are concerned about each other's well-being. Such feelings are likely to arise in relationships that are characterized by a history of regular support exchanges (Stark & Falk, 1998), such as the parent–child relationship. Following Silverstein et al., the observation that more emotional support provided to children in the past increases present support receipt from children might be understood by an ''implicit social contract that ensures long-term reciprocity'' (p. S12). This contract reinforces exchange of support at various stages in the life course, including both tit-for-tat and long-term exchanges. Child-care provision could be part of this social contract.

It is important to note that we did not limit our study to parents who were in need of support because of physical or cognitive impairment. The study focused on the receipt of emotional and instrumental support in the form of occasional help rather than within the context of a long-term care relationship. It therefore provides a more general view of support received from children. Long-term care is dictated by parents' needs, whereas occasional help is generally given sporadically, when a child has the opportunity (Brandt, Haberkern, & Szydlik, 2009). Children may also feel obliged to provide care rather than calling on formal arrangements (e.g., in-home health care aides; Roberto & Jarrott, 2008). Because of the more voluntary character of occasional help, this type of support is presumably better understood as the repayment of earlier investments than as caring for parents in the long term. In addition, it is important to note that our study drew on data that included measures with a limited time frame; therefore, children could have received child care before or after we made our measurements in 1992, and children could have reciprocated before or after the measurement of support receipt. The consequence of not having information about the other years presumably means that the effects of child-care provision are underestimated. Future researchers might want to include measures based on a longer time frame, because this would likely yield a more precise prediction of support receipts. Furthermore, future researchers could also include information about support exchanges from all children; for the current study we had to assume, for several children, that they did not provide support to their parents.

Our study has advanced our understanding of support exchanges in intergenerational relationships in an aging Western society. It is well known that children are an important source of support receipts by parents, thereby contributing to their aging parents' well-being. This study shows that older adults who wish to increase the likelihood of receiving support from their children might consider investing in their children, not only in an emotional sense but also by assisting their sons with child care.

Note

This study is based on data collected in the context of the Living Arrangements and Social Networks of Older Adults and Longitudinal Aging Study Amsterdam research programs (see http://www.lasa-vu.nl/). These programs are conducted at VU University in Amsterdam and supported predominantly by the Ministry of Health, Welfare, and Sports, Directorate of Long-Term Care.

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